

CLAIMS

1 1. (original) A method for reducing spurious emissions in an amplified signal, the method
2 comprising the steps of:

3 (a) amplifying a first copy of an input signal by a first amplifier sub-system;

4 (b) amplifying one or more other copies of the input signal by one or more other amplifier
5 sub-systems;

6 (c) combining outputs from the first amplifier sub-system and the one or more other
7 amplifier sub-systems to generate a combined amplified output signal, wherein the first amplifier sub-
8 system:

9 (1) applies pre-distortion to the first copy of the input signal to generate a pre-
10 distorted first copy of the input signal, wherein the pre-distortion of the first copy of the input signal is
11 based on the combined amplified output signal; and

12 (2) amplifies the pre-distorted first copy of the input signal to generate the output
13 from the first amplifier sub-system.

1 2. (original) The invention of claim 1, wherein a portion of the combined amplified output
2 signal is tapped off and fed back to the first amplifier sub-system for use in pre-distorting the first copy
3 of the input signal.

1 3. (original) The invention of claim 1, wherein each other amplifier sub-system:

2 (1) applies pre-distortion to its copy of the input signal to generate a pre-distorted copy of
3 the input signal, wherein the pre-distortion of its copy of the input signal is based on only the output from
4 said each other amplifier sub-system; and

5 (2) amplifies the pre-distorted copy of the input signal to generate the output from said each
6 other amplifier sub-system.

1 4. (original) The invention of claim 1, wherein each other amplifier sub-system amplifies
2 its copy of the input signal without performing any pre-distortion.

1 5. (original) The invention of claim 1, wherein:

2 during initial operations, each amplifier sub-system pre-distorts its copy of the input signal based
3 on only the output from said each amplifier sub-system; and

4 after the initial operations, the first sub-system pre-distorts its copy of the input signal based on
5 the combined amplified output signal.

1 6. (original) The invention of claim 1, further comprising performing pre-distortion by one
2 of the one or more other amplifier sub-systems based on the combined amplified output signal in case of
3 failure of the pre-distortion processing of the first amplifier sub-system.

1 7. (original) An apparatus comprising:

2 a first amplifier sub-system adapted to amplify a first copy of an input signal;

3 one or more other amplifier sub-systems adapted to amplify one or more other copies of the
4 input signal;

5 a combiner adapted to combine outputs from the first amplifier sub-system and the one or more
6 other amplifier sub-systems to generate a combined amplified output signal, wherein the first amplifier
7 sub-system comprises:

8 (1) a pre-distortion block adapted to apply pre-distortion to the first copy of the
9 input signal to generate a pre-distorted first copy of the input signal, wherein the pre-distortion of the
10 first copy of the input signal is based on the combined amplified output signal; and

11 (2) a power amplifier adapted to amplify the pre-distorted first copy of the input
12 signal to generate the output from the first amplifier sub-system.

1 8. (original) The invention of claim 7, wherein a portion of the combined amplified output
2 signal is tapped off and fed back to the first amplifier sub-system for use in pre-distorting the first copy
3 of the input signal.

1 9. (original) The invention of claim 7, wherein each other amplifier sub-system comprises:
2 (1) a pre-distortion block adapted to apply pre-distortion to its copy of the input signal to
3 generate a pre-distorted copy of the input signal, wherein the pre-distortion of its copy of the input signal
4 is based on only the output from said each other amplifier sub-system; and

5 (2) a power amplifier adapted to amplify the pre-distorted copy of the input signal to
6 generate the output from said each other amplifier sub-system.

1 10. (original) The invention of claim 7, wherein each other amplifier sub-system is adapted
2 to amplify its copy of the input signal without performing any pre-distortion.

1 11. (original) The invention of claim 7, wherein:
2 during initial operations, each amplifier sub-system is adapted to pre-distort its copy of the input
3 signal based on only the output from said each amplifier sub-system; and
4 after the initial operations, the first sub-system is adapted to pre-distort its copy of the input
5 signal based on the combined amplified output signal.

1 12. (original) The invention of claim 7, wherein:
2 the one or more other amplifier sub-systems comprise a second amplifier sub-system adapted to
3 amplify a second copy of the input signal; and
4 the combiner is adapted to combine the outputs from the first and second amplifier sub-systems
5 to generate the combined amplified output signal.

1 13. (original) The invention of claim 12, further comprising:
2 a first splitter adapted to split the input signal into the first and second copies of the input signal;
3 a first tap adapted to tap off a portion of the combined amplified output signal; and
4 a second splitter adapted to split the portion of the combined amplified output signal into two
5 copies, wherein each copy of the portion of the combined amplified output signal is fed back to a
6 different one of the first and second amplifier sub-systems.

1 14. (original) The invention of claim 13, wherein each amplifier sub-system further
2 comprises a switch adapted to select either the corresponding copy of the portion of the combined
3 amplified output signal or the output from said each amplifier sub-system for use in pre-distorting its
4 copy of the input signal.

1 15. (original) The invention of claim 7, wherein at least one of the one or more other
2 amplifier sub-systems is adapted to perform pre-distortion based on the combined amplified output
3 signal to provide a level of redundancy in case of failure of the pre-distortion processing of the first
4 amplifier sub-system.

1 16. (new) The invention of claim 1, wherein step (c) comprises summing the outputs from
2 the first amplifier sub-system and the one or more other amplifier sub-systems to generate the combined
3 amplified output signal.

1 17. (new) The invention of claim 7, wherein the combiner is adapted to sum the outputs
2 from the first amplifier sub-system and the one or more other amplifier sub-systems to generate the
3 combined amplified output signal.